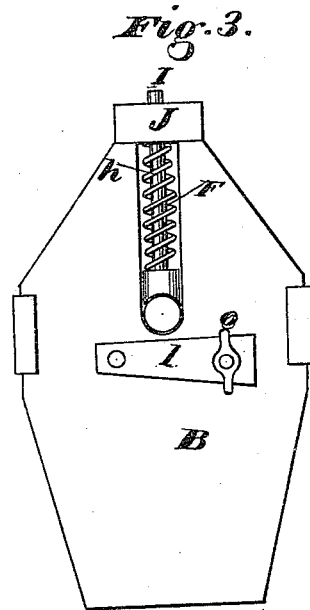
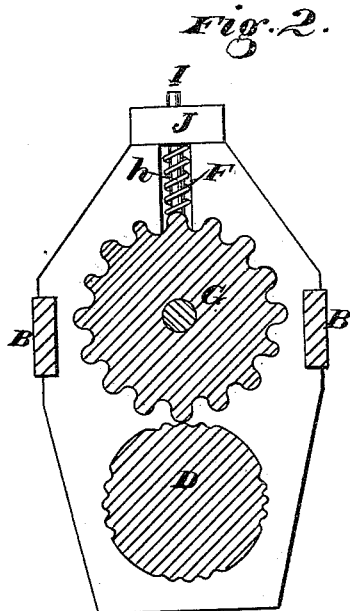
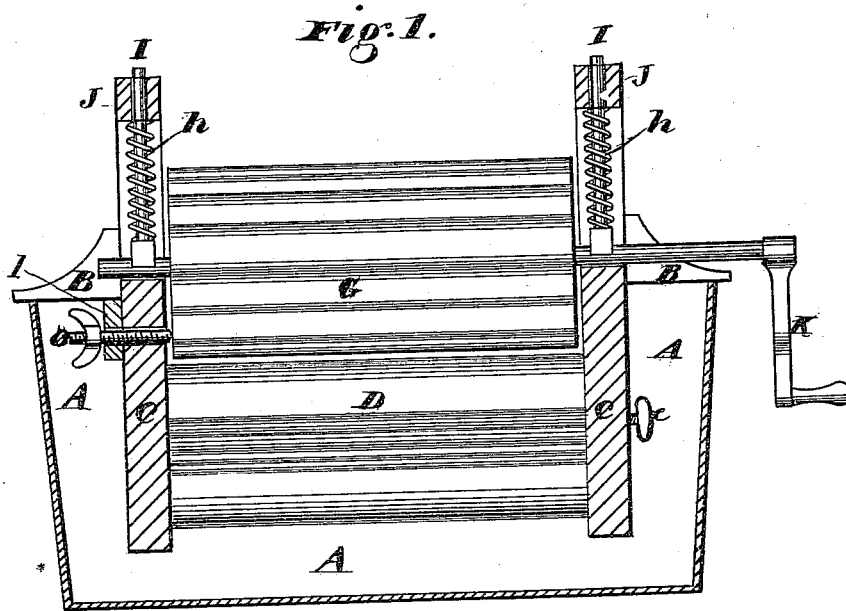


O. V. ROE.
Washing-Machine.

No. 165,874.

Patented July 20, 1875.



Witnesses
Geo. H. Strong.
Jno. L. Dome

Inventor
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UNITED STATES PATENT OFFICE.

ORVILLE V. ROE, OF CHICO, CALIFORNIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **165,874**, dated July 20, 1875; application filed May 17, 1875.

To all whom it may concern:

Be it known that I, ORVILLE V. ROE, of Chico, Butte county, State of California, have invented an Improved Washing - Machine; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My improvement in washing-machines consists in securing inside of a tub two corrugated rollers, one above another, the upper one of which can be rotated by means of a crank, so that the clothes to be washed can be run through between the two rollers, and thus cleansed.

In order to more fully describe my invention, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a longitudinal section of my mechanism. Fig. 2 is a transverse section. Fig. 3 is an end view.

A is a tub. B is a frame, which extends across the middle of the tub. The ends of this frame rest upon and are secured to opposite edges of the tub. The frame B consists of the two side rails, which are connected near each end by a vertical head-piece, C. These head-pieces extend both above and below the rails. Between the lower ends of the head-pieces C I secure a fluted or corrugated cylinder, D, by means of a set-screw, *e*, at one end, so that the cylinder can be permanently fixed and so used. The upper end of each head-piece has a vertical slot, F, and in the bottom of these slots the journals of an upper corrugated roller, G, which is parallel with and above the cylinder D, bear in each slot. Above the journal of the roller G is a compression-spring, *h*, which surrounds a guiding-spindle, I. The lower end of the guiding-spindle

bears upon the journal, while the upper end passes through a hole in a block, J, which is secured upon the head-pieces above the slot, and against which the upper end of the spring bears. The upper roller G has one of its journals extended, and a crank, *k*, attached to its extremity outside of the tub. The lower cylinder is made stationary by the thumb-screw *e*, so as to serve as a surface for rubbing the clothes upon. The upper roller G is intended to run as close as possible to the cylinder D without touching, or, if so, very lightly. The space between the rollers can be regulated by means of an adjustable block, *l*, and set-screw *o* on the outside of each head-piece, below the journals of the roller, by which the journals of the upper roller are adjusted in height.

The exact method of corrugating the upper roller or the cylinder is immaterial; but I prefer to make alternate corrugations and narrow plain spaces on the cylinder, as shown, so that buttons coming under the upper roller cannot catch so as to break, and in a full-sized machine the upper roller has large grooves, so that buttons can turn either way to prevent them from breaking.

I thus provide a cheap and effective washing-machine, in which the clothes may be either passed through between the rollers, or they may be inserted between them and held, so as to rub any dirty place or spot.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The tub A and cylindrical surface D, provided with the set-screw *e*, in combination with the frame B, provided with head-pieces C, adjustable roller G, plate *l*, and screw *o*, all constructed and combined to operate substantially as and for the purpose set forth.

ORVILLE VERMILYEA ROE.

Witnesses:

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